

CLAIMS

1. A method for determining charging related to a data bit transfer session, said bit transfer session involving bit transfer over a wireless communications
5 link (214f) under the control of a radio resource managing unit (204), which radio resource managing unit (204) dynamically determines the bandwidth on the wireless link that the bit transfer session is allowed to use characterised by the steps of:

a charging logic (212) receiving information from the radio resource
10 managing unit (204) about the bandwidth on the wireless link that the bit transfer session is allowed to use; and

said charging logic (212) determining the charging related to the bit transfer session based on said received information from the radio resource managing unit (204).

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2. The method for determining charging according to claim 1 characterised by the charging logic (212) receiving said information from the radio resource managing unit (204) each time the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use has changed.

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3. The method for determining charging according to claim 1 characterised by the charging logic (212) receiving said information from the radio resource managing (204) unit at predetermined intervals.

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4. The method for determining charging according to claim 1 characterised by the charging logic (212) receiving said information from the radio resource managing unit (204) each time the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use has changed and the bandwidth change has been applied to the session for a predetermined period of time.

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5. The method for determining charging according to claim 1 characterised by the charging logic (212) receiving said information from the radio resource managing (204) unit at intervals which depend on the service type of the bit transfer session.

6. The method for determining charging according to any of claims 1-5 characterised by the charging logic (212) receiving said information from the radio resource managing unit (204) via an application server (209) which
5 relays said information from the radio resource managing unit (206) to the charging logic (212).

7. The method for determining charging according to any of claims 1-5 characterised by the charging logic (212) receiving said information from the
10 radio resource managing unit (204) via a mobile proxy (210) which relays said information from the radio resource managing unit (204) to the charging logic (212).

8. The method for determining charging according to any of claims 1-7
15 characterised by the charging logic (212) adapting the charging related to the bit transfer session such that the session is charged according to charging rates associated with a first charging class when the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use is within a first predetermined interval and according to charging rates associated with a
20 second charging class when the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use is within a second predetermined interval.

9. The method for determining charging according to any of claims 1-8
25 characterised by the charging logic (212) determining that the charging related to the bit transfer session should be zero when the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use is below a predetermined threshold level.

30 10. The method for determining charging according to any of claims 1-9 characterised by the charging logic (212) adapting the charging related to the bit transfer session based on said received information from the radio resource managing unit (204) such that the impact of said received

information from the radio resource managing unit on the charging of the bit transfer session depends on the type of service of the bit transfer session.

11. Computer program product loadable into a memory of a digital computer device, including software code portions for performing the method of one of claims 1-10 when said computer program product is run on said computer device.

12. A charging logic for determining charging related to a data bit transfer session, said bit transfer session involving bit transfer over a wireless communications link (214f) under the control of a radio resource managing unit (204), which radio resource managing unit (204) dynamically determines the bandwidth on the wireless link that the bit transfer session is allowed to use characterised in that the charging logic includes

15 reception means (901) for receiving information from the radio resource managing unit (204) about the bandwidth on the wireless link that the bit transfer session is allowed to use; and

charging determining means (902) for determining the charging related to the bit transfer session based on said received information from the radio resource managing unit (204).

13. The charging logic according to claim 12 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing unit (204) each time the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use has changed.

14. The charging logic according to claim 12 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing (204) unit at predetermined intervals.

15. The charging logic according to claim 12 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing unit (204) each time the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use has changed and the

bandwidth change has been applied to the session for a predetermined period of time.

5 16. The charging logic according to claim 12 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing (204) unit at intervals which depend on the service type of the bit transfer session.

10 17. The charging logic according to any of claims 12-16 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing unit (204) via an application server (209) which relays said information from the radio resource managing unit (206) to the charging logic (212).

15 18. The charging logic according to any of claims 12-16 characterised in that said reception means (901) is arranged to receive said information from the radio resource managing unit (204) via a mobile proxy (210) which relays said information from the radio resource managing unit (204) to the charging logic (212).

20 19. The charging logic according to any of claims 12-18 characterised in that the charging determining means (902) is arranged to adapt the charging related to the bit transfer session such that the session is charged according to charging rates associated with a first charging class when the bandwidth
25 on the wireless link (214f) that the bit transfer session is allowed to use is within a first predetermined interval and according to charging rates associated with a second charging class when the bandwidth on the wireless link (214f) that the bit transfer session is allowed to use is within a second predetermined interval.

30 20. The charging logic according to any of claims 12-19 characterised in that the charging determining means (902) is arranged to determine that the charging related to the bit transfer session should be zero when the

bandwidth on the wireless link (214f) that the bit transfer session is allowed to use is below a predetermined threshold level.

21. The charging logic according to any of claims 12-20 characterised in that
5 the charging logic (212) is incorporated in a proxy node which further incorporates a mobile proxy.

22. The charging logic according to any of claims 12-20 characterised in that
the charging logic (212) is incorporated in an application/service node which
10 further incorporates an application logic.

23. The charging logic according to any of claims 12-20 characterised in that
the charging logic (212) is incorporated in a charging node, which is a node
dedicated to charging functionality.

24. The charging logic according to any of claims 12-23 characterised in that
the charging determining means (902) is arranged to adapt the charging
related to the bit transfer session based on said received information from the
radio resource managing unit (204) such that the impact of said received
20 information from the radio resource managing unit on the charging of the bit
transfer session depends on the type of service of the bit transfer session.

25. A system for determining charging related to a data bit transfer session,
said bit transfer session involving bit transfer over a wireless communications
25 link (214f), which system includes

a radio resource managing unit (204) which is arranged to control the bit
transfer session over the wireless communications link and to dynamically
determine the bandwidth on the wireless link that the bit transfer session is
allowed to use characterised in that the system further includes

30 a charging logic according to any of claims 12-24; and in that
the radio resource managing unit is further arranged to send information
about the bandwidth on the wireless link that the bit transfer session
currently is allowed to use to the reception means of said charging logic.